



Level IT Flex

Rapid Drying, Fibre Reinforced Smoothing Underlayment
Screed Classification: CT-C30-F7



INFORMATION

Ultra Floor Level IT Flex is a high specification, high strength, rapid curing, fibre reinforced two component smoothing underlayment system. It consists of a powdered component incorporating a blend of high specification cements, micro fibres, graded fillers and additives and a pre-gauged high polymer content liquid.

USES

The two components are mixed to provide a rapid setting and curing, free flowing smoothing underlayment for smoothing a variety of internal floors, prior to the application of decorative floor coverings. It enables them to be loose laid in as little as 90 minutes (unbonded textiles), fully bonded in just 3 hours (on to solid subfloors) and 4 hours (on subfloors subject to vibration).

This curing profile makes it an ideal choice for use in areas where it is necessary to carry out installations in a short timeframe whilst the high polymer liquid and fibre reinforced powder make it ideal over floors subject to slight lateral movement or vibration such as screwed and fixed plywood, mezzanine decks, raised access panels (must be securely fixed) and floors with surface electrical radiant heating systems.

Its protein free formulation means it is ideal for use in biologically sensitive areas. It can be used on a variety of subfloors and is suitable for use where warm water underfloor heating is incorporated in screeds and subfloors.

Level IT Flex can be applied between thicknesses of 2-10mm (on mezzanine, Plywood and raised access panels - must be securely fixed).

Its initial set is approximately 10 minutes with a walk on time of 30 minutes. It is necessary to maintain a wet edge between mixes so working practices should be adjusted accordingly to ensure this can be achieved within the products open time. Applications up to 5mm thick on solid subfloors can normally receive floor coverings after approximately 3 hours (based on good ambient conditions).

SUBFLOOR PREPARATION: ASSESSMENT

All subfloors should be protected from moisture from the subground by use of a Damp Proof Membrane. (Please check older properties, which may not have a base DPM, and consult Ultra Floor for advice). Assess moisture levels in accordance with BS 8203, to achieve a hygrometer reading of 75% RH or less. Where this is not attained, a surface Damp Proof Membrane should be used - the selection of which will be subject to the subfloor (seek advice from Ultra Floor). Any surface laitance, adhesive residue, paints, weak smoothing underlayments and other materials which will hinder Level IT Flex's bond with the subfloor should be mechanically removed. The subfloor should be clean, dry and sound. The area should also be dust free prior to any primer application.

SUBFLOOR PREPARATION: PRIMING SUMMARY

NB: All ratios are water: primer

Subfloors should always be primed. Primer should be allowed to dry prior to the application of Level IT Flex. Drying times will be based on ambient conditions – bear in mind that cold or damp/humid conditions and poor airflow can extend drying time (See Prime IT Multi-surface primer (MSP) datasheet for further information).

RECOMMENDED USES

Specifically designed for fast turnaround projects and for floors subject to slight vibration or thermal movement. Use as an underlayment for most floor coverings inc. sheet vinyl, LVT, linoleum & rubber and breathable textiles.

FEATURES

- Fibre reinforced
- Rapid drying
- 30 minute walk on time
- Ideal over Plywood subfloors
- Bonded floor coverings after 3 hours (on to solid subfloors)
- Loose lay in 90 minutes (unbonded textiles)



- 2-10mm
Thickness
- Working Time
10 Mins
- Foot traffic
30 mins
- Internal Floors



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Porous Substrates: Ultra Floor Prime IT MSP should be diluted 3:1 with clean water. Normally a single coat is sufficient, however very porous floors may require a further coat. Allow primer to fully dry.

Non-Porous Substrates including very dense substrates/subfloors: Ultra Floor Prime IT MSP should be applied neat, in a thin uniform coating and allowed to fully dry.

Calcium Sulphate/Anhydrite Substrates: Specific priming requirements should be in place, in conjunction with the substrate manufacturer's guidelines. As these are not cement based, a barrier primer is needed. A surface DPM is not recommended if moisture exceeds 75% RH – therefore the screed must be below this.

SUBFLOOR PREPARATION: WHICH SUBSTRATE?

NB: All ratios are water:primer.

NOTE: Where warm water UFH (Underfloor Heating) systems are incorporated within a screed/subfloor, they must have been fully commissioned and brought up to their maximum temperature, and ideally switched off 48 hours before application. In the absence of other heat sources, the UFH may be set to 'cutback' position to achieve an air temperature of 15°C. Any expansion or movement joints must be carried through to the floor covering surface.

Plywood Subfloor: Plywood should be sealed on the underside and edges to minimise moisture uptake. Level IT Flex is suitable for use as a smoothing underlayment on screwed fixed (300mm centres) flooring grade Plywood of a minimum thickness of 6mm. A recommended classification is SP101. Prime with Prime IT MSP (if plywood is already treated with a water proofing agent use Prime IT MSP) and allow to dry. A maximum 10mm of Level IT Flex is recommended.

Steel Mezzanine Decks and access panels: There should be no deflection between adjacent sheets of metal. All sheets should be screwed and securely fixed. Abrade to provide a lightly textured surface. (the use of an STG machine is recommended. Consult tool suppliers for appropriate pad/disc). Make dust free before priming with Ultra Floor Prime IT MSP, applied neat in a thin uniform coating. Allow to thoroughly dry before applying Level IT Flex.

Electrical Radiant Mat or Cable UnderFloor Heating Systems:

Level IT Flex can be used to encapsulate such heating systems prior to applying decorative floor coverings. Ultra Floor advise that substrates on which the cables are fixed must be stable, well secured and unaffected by moisture and heat changes. Such substrates include screeds and cement faced backer boards. Prime the surface with diluted Prime IT MSP (3 water to 1 primer) and allow to dry. Apply Level IT Flex to cover the top of the cables by a minimum 3mm. Allow to cure for 7 days before bringing the heating system into use under a controlled manner (as per initial commissioning).

Concrete Subfloors: Power floated concrete should be treated as non-porous. Mechanically abrade (shot blast or scarify) to remove surface hardeners to expose the cement/aggregate. Apply Prime IT MSP neat, in a thin uniform coating, allowing it to dry fully (usually 1-2 hours).

Tamped or pan floated concrete: Should be treated as porous, and any laitance or weak material should be mechanically removed to ensure a sound, dry and dust-free surface. Apply Prime IT MSP diluted 3:1 with clean water and allow to dry fully (usually 1-2 hours).

Sand/Cement Screeds: These should be strong enough for an application of Level IT Flex. Weak, friable or damaged screed should be uplifted and repaired. Apply Prime IT MSP diluted 3:1 with clean water and allow to fully dry (usually 1-2 hours). A two-coat application may be required for very absorbent screeds.

Terrazzo/Granolithic Ceramic Tiles: These must be securely bonded, and any surface treatment should be mechanically removed. A good mechanical key should be ensured by abrading the surface using a Surface Texturing & Grinding (STG) machine (a diamond disc is recommended). These subfloors can be treated as low porosity and primed using Prime IT MSP neat.

Ultra Floor Surface DPM: Applications should be carried out within 36 hours of DPM application (see DPM IT datasheets). The DPM must then be primed with Ultra Floor Prime IT MSP neat in a thin uniform coating, allowing it to dry fully (usually 1-2 hours).

Calcium Sulphate/Anhydrite/Hemihydrate Screeds: See relevant technical datasheet. A barrier primer application is required. If moisture is above 75%RH we do not recommend using a surface DPM. These screeds often incorporate warm water underfloor heating systems which can be used, along with dehumidifiers, to speed up the drying process. Screed manufacturer's normally suggest this can be conducted after 7 days minimum curing.

Mechanically remove any laitance or weak material to leave a clean, dry and dust-free surface. We recommend an STG machine with a suitable mesh grinding disc of 60-100 grade grit. Apply Prime IT MSP diluted 3:1 with clean water and allow to fully dry overnight. Apply a second coat diluted 1:1 with clean water allowing it to dry to a clear film (usually 1-2 hours).

Level IT Flex is not recommended over old adhesive residues, weak smoothing compounds or asphalt subfloors.

For any other scenarios please call Ultra Floor Technical Services for advice on 01827 871871

LEVEL IT FLEX APPLICATION

Shake the bottle of Level IT Flex liquid and pour into an oversized bucket (20+ Ltrs). Gradually add the powder whilst mixing continually with an electric drill with power whisk. When all powder is added mix for a further 2 minutes, keeping the whisk below the surface (to minimise air entrapment), until a lump free creamy material is attained.

The product should be mixed as close to the application area as possible and poured onto the subfloor as quickly as possible after mixing. This will ensure maximum working time. Regularly clean out the bucket or use a new bucket to ensure cured product does not collect in the mixing vessel.

It is advised that any spiked roller application be kept to a minimum to retain the randomness of the incorporated fibres. Spike Rolling should be carried out before the onset of the initial set, typically 10 minutes after mixing.

CURING AND DRYING

All times are based on a 3mm application and good site conditions (ie. Air temperature of 20°C, air humidity of 65% and good ventilation). Cold, humid or damp sites, or those with poor airflow, will prolong curing and drying times. Avoid strong drafts and direct sunlight during curing which can 'force dry' the product and result in excess tension and cracking. Level IT Flex is ready to receive light foot traffic after 30 minutes and floor coverings after as little as 90 minutes (unbonded textiles), 3 hours (bonded) after application to solid subfloors and 4 hours on subfloors subject to vibration).

TECHNICAL DATA

Specification	
BS EN 13813:2002 Screed Classification	CT-C30-F7
Application thickness:	2-10mm
Working time @ 20°C	10 mins
Walk on hardness time @ 20°C	30 mins
Ready to received floor coverings (based on 3mm application)	90 mins (unbonded) 3 hours (bonded on to solid subfloors) 4 hours (bonded on to subfloors subject to vibration)
Compressive Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 16.81 7 Days: 22.26 28 Days: 32.45
Flexural Strength (N/mm ²): (to BS EN 13892-2)	1 Day: 4.47 7 Days: 5.90 28 Days: 7.68
Packaging:	20kg bag & bottle

All figures above are based on tests carried out under quality controlled environments. Actual results attained will be subject to site conditions and allowances should be made accordingly.

BS EN13813:2002

References to BS EN13813:2002 confirms the minimum compressive and flexural strengths that the product will attain when tested to the standard.

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How much material?

Applied Thickness	Coverage Per Unit (approx)	Consumption Per 100m ² Area
3mm	5m ²	20 bags
5mm	2.6m ²	39 bags
10mm	1.3m ²	77 bags

Coverage is for guidance only based on a smooth, non absorbent subfloor. Substrate texture and absorbency can affect consumption variations.

As with all raw materials, colour variation may occur. Please note that this does not affect the consistency or characteristics of the enclosed product.

CLEANING

Tools should be cleaned in water immediately after use to remove excess materials.

STORAGE

Powder: store in a dry place between 5-30°C. Shelf life is 6 months in correctly sealed bags. High temperatures and high humidity will lead to a reduced shelf life. Avoid frost.

Liquid: store out of direct sunlight and maintain frost free conditions throughout storage and transportation. Shelf life is a minimum 12 months from the date of manufacture under good storage conditions. Avoid frost.

QUALITY ASSURANCE

All products are manufactured in a plant, the quality management system of which is certified/registered as conforming with BS EN ISO 9001, ISO 14001 and OHSAS 18001. Ultra Floor products are guaranteed against defective materials and manufacture and will be replaced or money refunded if the goods do not comply with our claims. We cannot, however, accept responsibility arising from the application or use of our products because we have no direct or continuous control over where and how our products are used. All Ultra Floor products are sold subject to our Terms & Conditions of Sale which are available from ultra-floor.co.uk.

HEATH & SAFETY

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash hands before consuming food and make sure that materials are kept out of the reach of children and animals. Please dispose of packaging and waste appropriately. A full MSDS for all our products is available from ultra-floor.co.uk.

The information contained within this product technical datasheet is given in good faith, based on our knowledge and experience and is offered to help select and use the most appropriate product. However, Ultra Floor cannot control site conditions or workmanship and cannot accept liability due to inappropriate use. If there are any concerns we advise that a trial area be carried out to ensure the performance of the materials under specific circumstances.

It is the responsibility of both the supplier and the end user to ensure the products are safely stored in a suitable environment to prevent damage and deterioration, including during transportation and placement on site.



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